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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,267	09/16/2003	Moses Minta	2001.031	1446

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EXAMINER

LEUNG, RICHARD L

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,267

Applicant(s)

MINTA ET AL.

Examiner

Richard L. Leung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2333149 A (Brown et al.) in view of US 5315381 (Goode et al.). Brown et al. disclose a process comprising providing pressurized methane-rich vapor (vaporized LNG) in a container (4) at a first pressure (b), withdrawing a pressurized liquid rich in methane (LNG) from the same container (4) or a second container (see page 4, last paragraph), pumping the pressurized liquid to a third pressure (c) using a pump (22), passing the pressurized liquid to an eductor (6) to drive the eductor (6) and passing the vapor to the eductor (6), thereby liquefying the vapor and combining the liquefied vapor with the pressurized liquid (see page 3) and forming a second liquid at another pressure (d), pumping the second liquid to a final pressure (e) using a second pump (30), and transporting the fluid through a pipeline (32) to the user. Since the fluid exiting the eductor (6) (i.e. the second liquid) is a liquid, it is inherent that it is below its bubble point temperature since otherwise it would be vapor. Brown et al. fail to disclose the step of heating the pressurized liquid leaving the eductor, thereby producing a vapor at a predetermined second pressure, and fails to disclose that the relationship of the various pressures produced along the process are exactly as recited by the claims. Goode et

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al. teach a fueling system comprising withdrawing a pressurized methane-rich liquid (LNG) from a container (101) and using a pump and vaporizer system (103) to produce a methane-rich vapor (CNG) at a controlled temperature and pressure (see column 2, lines 60-62) which is then transported through a pipeline (111) to the user. The pump and vaporizer system, for example, may include a pump (126) followed by a heat exchanger (129) for heating the LNG (see Fig. 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the LNG vaporizer in the system disclosed by Brown et al., for example along the pipeline (32), in order to produce a vapor at a controlled temperature and pressure as taught by Goode et al. because it is well known in the art that certain end-user devices require gas rather than liquefied gas. This is further evidenced by Applicant's suggestion on page 5, paragraph [0019] of the specification that various systems for vaporizing liquefied gas are already conventional in the art.

As stated earlier, since Brown et al. failed to disclose the heating of the liquid to produce a vapor at a predetermined second pressure, Brown et al. also failed to disclose the exact relationship between the various pressures as recited by the claims. However, these limitations such as having the third pressure higher than the second pressure (claims 1 and 6), having the pressure of the fluid leaving the eductor equal to or higher than the second pressure (claim 2), or pumping the liquid to substantially the second pressure prior to vaporizing (claim 3) would have been obvious engineering design choices at the time the invention was made to a person of ordinary skill in the art because Applicant has not disclosed that these pressure relationships provide an

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advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the combination of Brown et al. and Goode et al. because it is the vaporizer, as taught by Goode et al., that could control the pressure that is supplied to the end user (i.e. the second pressure). Further evidence is provided by the fact that the various different embodiments taught by the Applicant in the present invention illustrate that the exact configuration is not necessarily critical to the operation of the process.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard L. Leung whose telephone number is 571-272-4811. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise L. Esquivel can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard L. Leung
Examiner
Art Unit 3744

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DENISE L. ESQUIVEL
SUPERVISORY PATENT EXAMINER
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